They will also tell us that mere chance is absolutely excluded
from the operation of these laws, that everything is the result
of antecedent cause ; that wherever changes or developments
occur in substance or organism, they manifestly fulfil some
ulterior purpose ; and whenever the power to produce such
•change does not exist in the subject of that change, the power
must reside in something outside of it, in something which
is not it; a motive power must act apart from the substance
or organism, a power, which the latter does not possess.
And whenever we observe any process of this kind, a purpose
or an end to be accomplished, we know with certainty that
some Mind or Intelligence has had that purpose in view,
and either has furnished the substance or organism with the
motive power necessary for the accomplishment of the
purpose, or itself works in and through the said substance or
organism for effecting the purpose.
The Astronomer tells us that in the earth's circuit round
the sun, an orbit of about 583 millions of miles, its average
speed is between eighteen and twenty miles a second, so
that in one day of twenty-four hours, it travels about a million
and a half miles. The orbit is not quite an exact circle,

but elliptical. The sun is not in the centre ; therefore the
earth must be at one time of its revolution nearer the sun
than it is at another. There are two dangers to be avoided
in the earth's journey—one, the danger of its falling into
the sun, when it is nearest to it and the other, the danger of
its running wholly away from the sun into space, when it is
farthest from it, in spite of the sun's power of attraction to
keep it in its orbit. How marvellously these dangers are
prevented by the earth simply hastening and slackening
its speed to suit the varying conditions ! As she approaches
nearer and nearer to the sun, as in winter, she has to put
in greater speed in order to overcome the stronger attraction
of the sun. We have to move faster to prevent our falling
into the sun. Thereafter in six months' time we shall bs